

EXHIBIT A

MULTITONE AREA OF THE DOCUMENT CHANGES COLOR GRADUALLY AND EVENLY FROM DARK TO LIGHT WITH DARKER AREAS BOTH TOP AND BOTTOM
PHOTOCOEN TECHNOLOGIES, INC. 617 ELUSK BLVD SAN DIEGO, CA 92121
CALIFORNIA BANK NOTE CARLSBAD, CA 92008

THE SUM OF **475** dols 00 cts

2/24/2004

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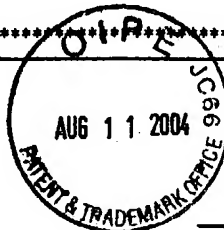
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SVP

ALLIA.62F1C2C1 IMAGENT PATENT APPLICATION 10/029

⑈002106⑈ ⑆122232109⑆ 2130049131⑈

PHOTOCOEN TECHNOLOGIES, INC. HAS A REFLECTIVE WATERMARK ON THE BACK OF THE NOTE. HOLD AT AN ANGLE TO VIEW WHEN CHECKING THE ENDORSEMENT.

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OFFICE OF PETITIONS

UTILITY/DESIGN PATENT

Date: 2/25/04

Rec'd in the U.S. Patent & Trademark Office on the date stamped hereon via Certificate of mail:

Case # _____ S/N: 10/029,172 Filed: 12/19/01

Pat # _____ Issued: _____

Examiner: Hartley, M Art Unit: 1616 Atty: J. Wurst

Applicant: Schutt et. al

Title: "Mixed Gas Microbubble Compositions"

☒ Amendment in 5 pages

☒ Petition for extension of time in 1 page

☒ check for \$475

☐ _____

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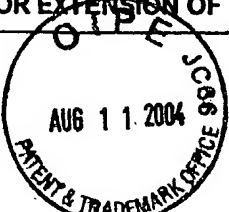
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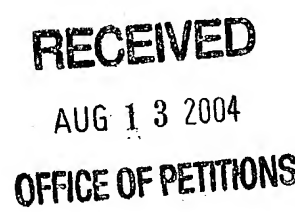
Under the paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)		Docket Number (Optional) <u>ALLIA.62F1C2C1</u>	
			
In re Application of <u>Schutt et al.</u>			
Application Number <u>10/029,172</u>		Filed <u>12/19/01</u>	
For Mixed Gas Microbubble Compositions			
Art Unit <u>1616</u>		Examiner <u>Hartley, M.</u>	

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above identified application.

The requested extension and appropriate non-small-entity fee are as follows (check time period desired):

<input type="checkbox"/> One month (37 CFR 1.17(a)(1))	\$ _____
<input type="checkbox"/> Two months (37 CFR 1.17(a)(2))	\$ _____
<input checked="" type="checkbox"/> Three months (37 CFR 1.17(a)(3))	\$ <u>950.00</u>
<input type="checkbox"/> Four months (37 CFR 1.17(a)(4))	\$ _____
<input type="checkbox"/> Five months (37 CFR 1.17(a)(5))	\$ _____



☒ Applicant claims small entity status. See 37 CFR 1.27. Therefore, the fee amount shown above is reduced by one-half, and the resulting fee is: \$ 475.00

☒ A check in the amount of the fee is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☐ The Director has already been authorized to charge fees in this application to a Deposit Account.

☐ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number _____.

I have enclosed a duplicate copy of this sheet.

I am the ☐ applicant/inventor.

☐ assignee of record of the entire interest. See 37 CFR 3.71.
Statement under 37 CFR 3.73(b) is enclosed (Form PTO/SB/96).

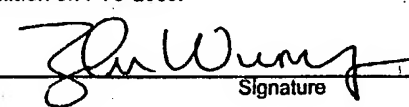
☒ attorney or agent of record. Registration Number 40,283

☐ attorney or agent under 37 CFR 1.34(a).
Registration number if acting under 37 CFR 1.34(a) _____

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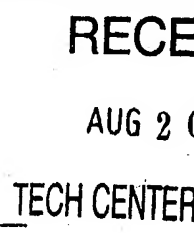
02/25/04
Date

858/410-5174
Telephone Number



Signature

John Wurst
Typed or printed name

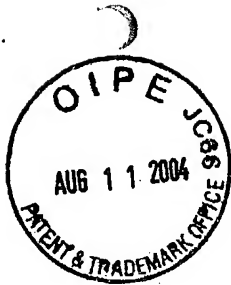


NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☒ Total of one forms are submitted.

This collection of information is required by 37 CFR 1.136(a). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 6 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Alexandria, VA 22313-1450

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CERTIFICATE OF MAILING BY "First Class Mail"

Attorney Docket No. : ALLIA.062F1C2C1
Applicants : Schutt et al.
For : MIXED GAS MICROBUBBLE
COMPOSITIONS
Attorney : John Wurst
Date of Deposit : Feb. 25, 2004

I hereby certify that the accompanying

Amendment, Petition for an Extension of Time, Check for \$475 and Prepaid
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are being deposited with the United States Postal Service as "First Class Mail" in an
envelope addressed to: Commissioner of Patents and Trademarks, P.O. Box 1450 Alexandria,
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John Wurst

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ALLIA.062F1C2C1



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Schutt et al.
Appl. No. : 10/029,712
Filed : Dec. 19, 2001
For : MIXED GAS
MICROBUBBLE COMPOSITIONS
Examiner : M. Hartley
Group Art Unit : 1616

I hereby certify that this correspondence
and all marked attachments are being
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addressed to: Commissioner of Patents
and Trademarks, P.O. Box 1450,
Alexandria, VA, 22313-1450 on:

2/25/04

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AMENDMENT

Commissioner for Patents and Trademarks
Washington, D.C. 20231

Dear Sir:

In response to the Official Action dated August 25, 2003, applicants have the following
response:

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Appl. No. : 10/029,712
Filed : Dec. 19, 2001

AMENDMENTS TO THE CLAIMS:

This listing of the claims will replace all prior versions and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended) An injectable ultrasound contrast agent comprising:

- (a) a suspension of gas filled microbubbles or microballoons in a physiologically acceptable aqueous carrier comprising at least two surfactants; and additives; and stabilizers wherein:
- (b) the gas is a gas mixture of at least two biocompatible gases A and B;
- (c) gas B is present in an amount of between ~~0.5% - 50%~~ 50% - 99% by volume;
- (d) gas B has a water solubility of not more than about 0.5mM at 25 C and one atmosphere and an average molecular weight at least about 4 times that of gas A; and,
- (e) the balance of the mixture is gas A.

2. (new) The injectable contrast agent of claim 1 wherein the aqueous carrier is water.

3. (new) The injectable contrast agent of claim 1 wherein gas B is perfluoropropane.

4. (new) The injectable contrast agent of claim 1 wherein gas B is selected from the group consisting of perfluoropropanes, perfluorobutanes, perfluorocyclobutanes, perfluoropentanes, perfluorocyclopentanes, perfluoro methylcyclobutanes, perfluorohexanes, perfluorocyclohexanes, perfluoro methyl cyclopentanes, perfluoro dimethyl cyclopentanes, perfluoro heptanes, perfluoro cycloheptanes, perfluoro cycloheptanes, perfluoromethyl cyclohexanes, perfluoro dimethyl cyclopentanes, perfluoro trimethyl cyclobutanes perfluoro triethylamines.

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Filed : Dec. 19, 2001

5. (new) The injectable contrast agent of claim 1 wherein gas B is selected from group consisting of perfluoropropanes, perfluorobutanes, perfluoropentanes, perfluorohexanes and perfluoro heptanes.

6. (new) The injectable contrast agent of claim 1 wherein gas A is selected from oxygen, nitrogen and carbon dioxide.

7. (new) The injectable contrast agent of claim 1 wherein gas A is air.

8. (new) The injectable contrast agent of claim 1 wherein said surfactant is a phospholipid.

9. (new) The injectable contrast agent of claim 1 wherein said surfactant comprises a mixture of phospholipids.

10. (new) An injectable ultrasound contrast agent comprising:

(a) a suspension of gas filled microbubbles or microballoons in a physiologically acceptable aqueous carrier comprising a surfactant comprised of at least one phospholipid wherein:

(b) the gas is a gas mixture of at least two biocompatible gases A and B;

(c) gas B is present in an amount of between .5 - 50% by volume;

(d) gas B has a water solubility of not more than about 0.5mM at 25 C and one atmosphere and an average molecular weight at least about 4 times that of gas A; and,

(e) the balance of the mixture is gas A.

11. (new) The injectable contrast agent of claim 10 wherein the physiological aqueous carrier is water.

12. (new) The injectable contrast agent of claim 10 wherein gas B is perfluoropropane.

13. (new) The injectable contrast agent of claim 10 wherein gas B is selected from the group consisting of perfluoropropanes, perfluorobutanes, perfluorocyclobutanes, perfluoropentanes, perfluorocyclopentanes, perfluoro methylcyclobutanes, perfluorohexanes, perfluorocyclohexanes, perfluoro methyl cyclopentanes, perfluoro dimethyl cyclopentanes,

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Filed : Dec. 19, 2001

perfluoro heptanes, perfluoro cycloheptanes, perfluoro cycloheptanes, perfluoromethyl cyclohexanes, perfluoro dimethyl cyclopentanes, perfluoro trimethyl cyclobutanes perfluoro triethylamines.

14. (new) The injectable contrast agent of claim 10 wherein gas B is selected from group consisting of perfluoropropanes, perfluorobutanes, perfluoropentanes, perfluorohexanes and perfluoroheptanes.

15. (new) The injectable contrast agent of claim 10 wherein gas A is selected from oxygen, nitrogen and carbon dioxide.

16. (new) The injectable contrast agent of claim 10 wherein gas A is air.

17. (new) The injectable contrast agent of claim 10 wherein said surfactant comprises a mixture of phospholipids.

18. (new) The injectable contrast agent of claim 10 wherein gas A and gas B are present in a molar ratio of about 1: 100 to 1000: 1.

19. (new) The injectable contrast agent of claim 1 wherein gas A and gas B are present in a molar ratio of about 1:100 to 1000:1.

20. (new) The injectable contrast agent of claim 10 further comprising additives and stabilizers.

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Filed : Dec. 19, 2001

REMARKS

Claim 1 is hereby amended and claims 2 - 20 are hereby added. Regarding the double patenting rejection, applicants will review the claims at time of allowance and provide a terminal disclaimer if necessary.

A three month extension of time is hereby requested for responding to the Office Action and check for the fee (\$475) is included. If there are any questions, applicant's attorney can be reached at the telephone number stated below.

Respectfully submitted,

Dated: 2/25/04

By: 

John Wurst
Registration No. 40,283
Attorney of Record
(858) 410 - 5174